

Date: Sun, 24 Jul 94 04:30:24 PDT
From: Ham-Space Mailing List and Newsgroup <ham-space@ucsd.edu>
Errors-To: Ham-Space-Errors@UCSD.Edu
Reply-To: Ham-Space@UCSD.Edu
Precedence: Bulk
Subject: Ham-Space Digest V94 #204
To: Ham-Space

Ham-Space Digest Sun, 24 Jul 94 Volume 94 : Issue 204

Today's Topics:

 * SpaceNews 25-Jul-94 *
 WEFAX from PYE TELECOMMUNICATIONS PT AM 10DYV Receiver?

Send Replies or notes for publication to: <Ham-Space@UCSD.Edu>
Send subscription requests to: <Ham-Space-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Space Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-space".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Fri, 22 Jul 1994 13:29:10 MDT
From: tribune.usask.ca!quartz.ucs.ualberta.ca!alberta!ve6mgs!usenet@decwrl.dec.com
Subject: * SpaceNews 25-Jul-94 *
To: ham-space@ucsd.edu

SB NEWS @ AMSAT \$SPC0725
* SpaceNews 25-Jul-94 *

BID: \$SPC0725

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SpaceNews
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MONDAY JULY 25, 1994

SpaceNews originates at KD2BD in Wall Township, New Jersey, USA. It is

published every week and is made available for unlimited distribution.

★ LUSAT NEWS ★

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The LUSAT-OSCAR-19 satellite continues to operate without its file server running. The satellite continues to transmit the following beacon:

LUSAT-1>AMARG <UI>:

May 21.

OBC crashed on May 17 at +/- 2:45 utc, lat 45s, lon 43 w.

Only digipeater is available.

Although the file server is not available, the satellite does function as a digipeater, and other ground stations can be connected point to point, via LUSAT-1. The satellite has uplinks on 145.840, 145.860, 145.880, and 145.900 MHz using 1200 bps AX.25 Manchester encoded FSK. The BPSK downlink is on a frequency of 437.135 MHz.

Binary telemetry transmissions made by LUSAT-1 indicate that the spacecraft is in good health and transmitting with an output power of a little more than one watt.

Frank, KB2MVN in East Chatham, New York is making available his packet mailbox via LUSAT-1. Stations on the east coast of North America can connect to the mailbox when under a common footprint with Frank using a regular terminal program by issuing the command:

c kb2mvn v lusat-1

Monitor LUSAT's beacon to determine if the mailbox is active and accessible from your ground station location. Frank asks that you leave him a message if you are able to access the mailbox.

[Info via LU2BDT and KB2MVN]

★ STS-65 SAREX INFO ★

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Greg LaBorde, KD6MSM, at the Jet Propulsion Laboratory in Pasadena, California pointed out that some of the callsigns that appeared in the STS-65 SAREX packet frames in last week's issue of SpaceNews were actually those of DX Packet Clusters and their users. This is apparently the result of frequency sharing between the K6EX0 DX Cluster in Los Angeles, California and the SAREX package on the Space Shuttle Columbia.

Joe, WA2GSY, in New Jersey provided the following packet frame received from the Space Shuttle Columbia on 21-Jul-94 at 10:26:16 UTC:

W5RRR-1>QST <UI>:

With the conclusion of this most successful mission, we wish everyone on earth the very best and thank you for your support, KC5HBV, KC5FVF and the rest of the STS-65 Crew.

★ KD2BD PACSAT MODEM ★

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The August 1994 issue of QEX magazine will carry an article describing the "KD2BD Pacsat Modem", a high-performance 1200 bps BPSK modem designed for communication with "Pacsat" satellites. QEX is an experimenter's journal published by the American Radio Relay League.

The KD2BD Pacsat Modem is the result of several years of development and testing. It was designed around commonly available components for easy duplication and provides outstanding performance.

Among the modem's strengths is its ability to successfully decode BPSK signals well into the noise level using correlation decoding techniques. The modem can be used for communication with PACSAT, WEBERSAT, LUSAT, FO-20, and ITAMSAT as well as many future digital store-and-forward amateur communication satellites. It can also be used for weak signal terrestrial packet radio communications.

In operation, the modem demodulates binary phase shift keying signals received from the downlink of a digital amateur communications satellite via a 70-cm SSB receiver and antenna system. A digital AFC circuit in the modem automatically adjusts the receiver tuning in response to Doppler shift. The modem also generates a Manchester encoded serial data stream that when fed into the microphone connector of a 2-meter FM transmitter, produces 1200 bps Manchester encoded FSK suitable for establishing a full duplex digital communications link with Pacsat satellites.

Schematics, photographs, and a discussion of the modem design and its operation are included in the article. As evidence of its performance, a copy of this issue of SpaceNews has been uploaded to the AMSAT-OSCAR-16 microsat using the KD2BD Pacsat Modem, and will remain available for the next several days.

★ AMSAT-OSCAR-21 NEWS ★

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At 16:17:43 EDT (20:17:43 UTC), Sunday afternoon, July 20, 1969, astronaut Neil A. Armstrong spoke the words:

"Houston, Tranquility Base here. The Eagle has landed."

At 20:56 EDT, later the same day, Armstrong stepped down from the ladder of the Lunar Module onto the Moon's surface and said:

"That's one small step for (a) man, one giant leap for mankind."

Edwin Aldrin followed him about 15 Minutes later, while Michael Collins orbited the Moon with the APOLLO-11 Command and Service Module at an altitude of 100 kilometers.

To commemorate the anniversary of this historic event, a special Multi-Media Broadcast has been uploaded into the RUDAK system on the AMSAT-OSCAR-21 satellite that includes the historic words and the APOLLO-11 logo in APT FAX format.

AMSAT-OSCAR-21's RUDAK downlink is a frequency of 145.987 MHz and can be received anywhere in the world using a narrowband FM receiver when the satellite is above the local horizon.

[Info via Peter, DB20S, on behalf of AMSAT-DL and AMSAT-Russia]

* JUPITER OBSERVATIONS *

=====

Amateur astronomer Syl Pauley, K1ZFN, in Warwick, Rhode Island observed the remanants of two comet "hits" into the planet Jupiter using his 13.1-inch reflecting telescope (Dobsonian) and a 4 mm eyepiece. The holes created in the Jovian atmosphere were readily observable by him and interested neighbors. Observations were made at approximately 9:30 PM EDT on 19-Jul-94.

Syl would like to hear of any other reports from observations made by others using small telescopes. Syl can be reached via his packet radio address: K1ZFN @ KC1CE.

[Info via Syl, K1ZFN]

* SSTV ON OSCAR 13 *

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Slow scan television (SSTV) enthusiasts are invited to join the SSTV sessions being carried on the AMSAT-OSCAR-13 satellite on a downlink frequency of 145.955 MHz.

The SSTV net meets at 45 minutes before the Mode S transponder is activated, and on Mode B following Mode S sessions on Saturdays and Sundays. Comments on these nets should be directed to wb6llo@amsat.org who is coordinating the SSTV nets on AO-13.

[Info via Dave Guimont]

* THANKS! *

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Thanks to all those who sent messages of appreciation to SpaceNews,
especially:

FB1RCI VA3ART G4RLZ WB6SHI ZS6BMN K8RBV N8HOL TG9IKE NOVMR

* FEEDBACK/INPUT WELCOMED *

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Mail to SpaceNews should be directed to the editor (John, KD2BD) via any
of the following paths:

FAX : 1-908-747-7107
PACKET : KD2BD @ N2KZH.NJ.USA.NA
INTERNET : kd2bd@ka2qhd.de.com -or- kd2bd@amsat.org
SATELLITE : AMSAT-OSCAR-16

MAIL : John A. Magliacane, KD2BD
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Lincroft, New Jersey 07738
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<<= SpaceNews: The first amateur newsletter read in space! -=>>

/EX

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John A. Magliacane, KD2BD * /\ * Voice : 1-908-224-2948
Advanced Technology Center |/\| Packet : KD2BD @ N2KZH.NJ.USA.NA
Brookdale Community College |/\| Internet: magliaco@pilot.njin.net
Lincroft, NJ 07738 * /\ * Morse : -.- -.. ..--- -... -..

Date: Fri, 22 Jul 1994 22:39:39 GMT
From: ihnp4.ucsd.edu!agate!howland.reston.ans.net!torn!nott!cunews!
freenet.carleton.ca!FreeNet.Carleton.CA!ag381@network.ucsd.edu
Subject: WEFAX from PYE TELECOMMUNICATIONS PT AM 10DYV Receiver?
To: ham-space@ucsd.edu

In a previous article, wwg@courts.UUCP (Warren Gay) says:

>The issue: Can this receiver work at 137+ Mhz?

>

>I have a PYE aircraft AM transceiver, that was modified to be a RX
>only unit (which is fine), using the two crystal sockets for two different
>receive frequencies, since the TX crystal is no longer needed.

>

>

>Of course, I'm assuming that NOAA signals are AM audio signals. However,
>if this should turn out to be FM instead-- no big deal. I can build a
>demod circuit after the IF section. Email preferred, thanks.

>

Well, NOAA is FM and you may be able to fab a demod. But
your IF bandwidth is likely too narrow since you'll need
about 30 - 40 kHz. I suggest to check this first before
spending any \$\$.
Good luck.

>-----

>Warren W. Gay VE3WWG John Coutts Library Services Limited

>wwg@coutts.UUCP Niagara Falls, Ontario, Canada

>(or wwg%coutts@uunet.ca, wwg%coutts@uunet.uu.net)

>

End of Ham-Space Digest V94 #204
